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Office for Information  
Technology Policy

EX PARTE OR LATE FILED

# ALA American Library Association

April 29, 1997

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, NW Room 222  
Washington, DC 20554

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Federal Communications Commission  
Washington, D.C.

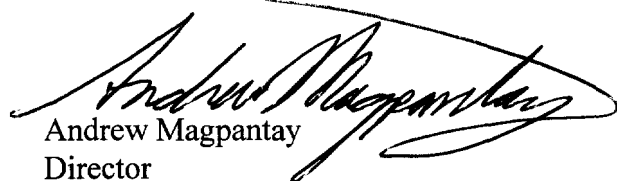
Re: Ex Parte Presentation  
CC Docket No: 96-45, Federal-State Joint Board on Universal Service

Dear Mr. Caton:

The American Library Association respectfully submits the attached document for the record in Docket 96-45. On April 25th, ALA sent the attached to Mark Nadel of the FCC staff. This document is submitted in response to a question Mr. Nadel asked earlier on the 25th.

If you have any questions about this filing, please contact me at 202/628 8421.

Sincerely,



Andrew Magpantay  
Director  
Office for Information Technology Policy  
American Library Association

Enclosure

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# ALA American Library Association

April 25, 1997

Mark Nadel  
Federal Communications Commission  
2100 M Street, N.W.  
8th Floor  
Washington, DC 20554

Re: Ex Parte Presentation  
CC Docket No: 96-45, Federal-State Joint Board on Universal Service

Dear Mr. Nadel:

Regarding your request for information on the use of poverty information to determine the size of library universal service discounts. I spoke with Dr. Keith Lance, Director, Library Research Service, Colorado Department of Education about the use of a one mile radius in estimating the poverty level for a library's service area. He referred me to two works by Dr. Christine Koontz at Florida State University's Florida Resources and Environmental Analysis Center. (This is the same center that produced the earlier information on poverty distribution submitted in ALA's January 10, March 17, and April 4 ex parte filings related to this matter.) According to Dr. Lance, Dr. Koontz's work does substantiate the validity of using a one-mile radius in conjunction with GIS software for the purposes of estimating poverty level for a library's service area. I include the two relevant citations by Dr. Koontz below:

Christie Koontz, *Using Geographic Information Systems for Estimating and Profiling Geographic Library Market Areas*, in GEOGRAPHIC INFORMATION SYSTEMS AND LIBRARIES: PATRONS, MAPS AND SPATIAL INFORMATION. PROCEEDINGS OF THE 1995 CLINIC ON LIBRARY APPLICATIONS OF DATA PROCESSING (Linda C. Smith & Myke Gluck eds., 1995)

**Abstract:** A definition of legal service or market area is difficult for public library management due to limited available data regarding user residence, and because people may cross service lines for any number of reasons. Yet an accurate estimate and a subsequent socioeconomic profile of the geographic market to be served (market analysis) is essential in order to provide unique community-based services and materials. Geographic information system (GIS) software can facilitate library market analysis by graphically estimating geographic boundaries and analyzing socioeconomic characteristics within prescribed markets in one online environment. This discussion illustrates the utility of GIS in estimating and profiling library markets. The Evansville-Vanderburgh County public library system is used to provide realistic library market analysis situations.

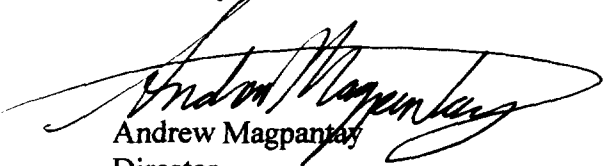
CHRISTINE M. KOONTZ, LIBRARY FACILITY SITING AND LOCATION HANDBOOK (Greenwood Library Management Collection, Greenwood Publishing Group, forthcoming May 1997).

An earlier article by E. Susan Palmer, "The Effect of Distance on Public Library Use: A Literature Survey," in the Winter 1981 *Library Research*, pages 315-354, states that a one-mile radius was suggested as a service radius as early as 1911 and was set as an optimal distance for service in urban libraries by the American Library Association's publication *Post-War Standards for Public Libraries* (1943).

This one-mile radius was used as a uniform standard by which to construct the suggested library universal service discount matrix submitted in the ALA ex parte filings mentioned above. This one-mile radius was chosen because it provided a national, uniform, reproducible, standard which had an historical precedent that could be used in constructing a discount matrix that conformed to the Joint Board's Recommendation. As stated in ALA's previous filings, libraries already have or are able to obtain more complete poverty information reflecting their entire service area.

Thank you for all your hard work on this issue and please let me know if I can be of any further assistance on this issue.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Magpantay", written over a horizontal line.

Andrew Magpantay  
Director  
Office for Information Technology Policy  
American Library Association

CC: William Caton  
Acting Secretary  
Federal Communications Commission

LIBRARY RESEARCH 3 (315-354) (1981)

REVIEW ARTICLE NO. 4 Winter 1981

## The Effect of Distance on Public Library Use: A Literature Survey\*

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## I. INTRODUCTION

The relationship between man and his spatial environment is an intricate one. An individual is likely to use facilities located within his/her normal range of travel. However, efforts to provide services within the range of all possible users may result in inadequate provision of resources at each dispersed location.

Library administrators have long recognized this need for a balance between convenience to the user and provision of adequate service. Over the years, surveys of library users have indicated the limits of local constituencies. Parallel observations have been made in a host of other fields, from the definition of residential choice in relation to the journey to work, to shopping pattern observations, and choice of leisure activities (Haggett et al., 1977). Some of the models derived from these fields of study have been applied to the library situation (Buckland, 1978; Elton and Vickery, 1973; Hamburg et al., 1974; Kantor, 1979). However, the wealth of resources available in the public facility planning literature remains largely untapped. A consolidation of the literature representing the librarian's practical experience and the planners' theoretical expertise would facilitate understanding of the complex role distance plays in library use.

## II. HISTORICAL PERSPECTIVE

The physical structures which house our libraries present both a challenge and a constraint. Their present sites and condition affect future development, while their form of construction and pattern of distribution are rooted in concepts of the past. A brief examination of trends in library location theory provides a basis for understanding the present situation.

In the 1870s, an analysis of applications for registration convinced the Board of Trustees of the Boston Public Library that "inconvenience of access to the Central Library deprived the people of East Boston of their natural use of that great collection" (Greenough, 1871). As a result, the East Boston branch became America's first formal branch library (Carroll, 1966). By the turn of the century, the American Library Association's *Manual of Library Economy* had this recommendation: "...the city which provides branch libraries not more than a mile apart is not in danger of overdoing its library facilities; while in densely populated parts of large cities two or three times as many branches may be needed" (Eastman, 1911).

The 1912 Annual Report to the Board of Trustees of the Chicago Public Library offered this comment concerning their recent branch acquisitions:

It is to be regretted that the extension could not be carried out pursuant to a carefully mapped plan based on population, well-defined districts, and other factors which should control. Instead, perforce, the branches have been located as offered. (Chicago Public Library, 1916, p. 5).

Four years later, the city approved a bond issued later considered "a landmark in library history" (Joeckel and Carnovsky, 1940, p. 41). Its goal was to supply "library service within walking distance of home for every person in the City of Chicago who can read or wants to use books" (Chicago Public Library, 1916, p. 3).

By 1927, an ALA survey numbered among Class A library systems (100,000 volumes or more): 7 systems with branches less than 1/2 mile apart on an average, 11 systems within the 1/2-1 mile range, and 6 additional systems with branches under 1 1/2-miles apart (American Library Association, 1927). Florence Goodenough (1926) evaluated the impact of these building efforts in her statistical analysis of library services among major U.S. libraries. She found that accessibility was second only to funding as a key factor effecting library circulation. For example, Columbus, Ohio's single library served a population of 268,000 and averaged 1.11 volumes per capita circulation. In contrast, Cleveland, Ohio had multiple branches, each serving an average of 16,000 people with an average circulation of 6.54 volumes per capita.

On a local level, examination of registration and circulation records was evolving as an evaluative tool. Pilcher (1923), Jones (1926), and Horowitz (1933) presented landmark surveys of system-wide use, while Potvliet (1928) and Wert (1937) focused on individual branches. Douglas Waples (1932), in an investigation designed to determine the reading interests most closely associated with library usage, discovered that proximity to a branch had a greater influence on patronage levels than any specific subject interest. Laurel Krieg (1939) corroborated this, noting that 55 percent of the patrons surveyed lived within 10 blocks of the library. A user study by Gray and Monroe (1929) noted that accessibility was a definite factor in book use. The authors pointed to the success of the County Library Service in California as support for the theory that accessibility increases consumption. Evans (1976) details a number of surveys in his history of community analysis.

One mile, a distance suggested by Eastman in 1911, was accepted as an early service radius (McDiarmid, 1940). The American Library Association, *Post-War Standards for Public Libraries* (1943) set 1-mile limits for optimal service in urban library systems. In Britain, this became "pram-pushing distance" in Library Association literature (Library Association, 1952). Grundt (1968) noted that the distribution of libraries in Boston is such that a library branch is less than 1/2 mile from most homes.

These close-spacing policies gradually encountered resistance. The report of the Los Angeles Bureau of Budget and Efficiency (1949) clearly represents this counter-trend. Their survey indicated that a majority of patrons drove to the library, some travelling as much as 10 miles for service. With such obvious mobility, they concluded, it would be more economical if a district consolidated its facilities. Considerable economy of scale would result, and the resulting larger collections would offer more variety to patrons.

This argument was strengthened considerably with the publication of the massive Public Library Inquiry (Berelson, 1949; Leigh, 1950). Their recommendation for consolidation was echoed by the library location prophet of the 1950s and 1960s, Joseph Wheeler. The Wheeler doctrine stressed the importance of attractive buildings, business and shopping center locations, and extensive consolidation of services (Wheeler, 1958, 1967). His empirical approach, with emphasis on learning from the mistakes of the past, fostered a burgeoning of evaluative location literature (Bertram, 1963; Freestone, 1976; Freestone, 1978; Vance, 1960).

At a recently held symposium (Galvin, 1976) many of the topics discussed related to the public's perceived awareness of the library and the convenience of the journey there. Awareness was characterized by the relative "visibility" of the library in the community, by its association with other commercial and service institutions and by the image evoked by the surrounding neighborhood. Perceptions of convenience were influenced by the terrain, both natural and man-made barriers, presence or absence of long stairways, availability of parking space, hazardous traffic conditions, etc.

Observations of this type, while significant, tend to focus on the site itself rather than on the public served. Dunstan (1977) notes that many library location studies start with the assumption that the library must be placed on available public land. This disregards the location's effect on use. Potential user access should be considered as the governing factor, location as the variable.

### III. CURRENT TRENDS

Concern for the immobile patron has become an increasingly significant topic in the last decade. Martin (1969), Arthur D. Little and John S. Bolles (1970), and Healy et al. (1980) recognize the need to maintain services at seemingly inefficient branches which serve mainly the young, the poor or the elderly. Keith Doms (1967, pp. 931-932) noted that

...for far too many years, public library planning and development has been derived from a mysterious essence seemingly comprised of one part intuition, one part information, and one part assumption. Admittedly, while this formula has produced many good decisions, one wonders

how many would have been better if one had possessed a fuller knowledge of the user and the nonuser. . . . What kinds of patrons need what kinds of materials? What are different use patterns in different clientele areas? While there have been useful studies . . . in (the library's) relationship to the needs of large groups of disadvantaged persons, we are still confronted with major premises such as the well-established and pervasive point of view that quality of service is improved primarily through provision of fewer but larger units. . . . Only recently several colleagues have suggested that perhaps we should resort to older patterns of service that have worked and that we ought to plan programs appropriate to the needs of the immobile as well as for those who are highly mobile.

Recent periods of fiscal austerity have led library administrators to consider consolidation of services (Getz, 1980). While consolidation may be economically advantageous, care should be exercised to consider the impact of closures on the particular patron groups involved. The library's public should be considered in terms of differing levels of motivation toward library use (Consad Research, 1968).

The following section will consider the relationship between the distance separating an individual from a library and the use that individual makes of the library. After the library user has been characterized, a public facility modelling theory will be discussed briefly in relationship to library location. Equity, "fairness, impartiality or equality of service" (Savas 1978, p. 802) will be discussed in conjunction with decisions involving the opening of new branches and the closing of existing facilities.

### IV. DISTANCE AND THE LIBRARY USER

One means of examining the effect of distance as a deterrent to library use is to analyze the use of libraries in rural or poorly served areas. Hodgson (1946) concludes that library use in non-served areas of rural Indiana is limited to a core population (under 5% of all residents) that has sufficient interest in libraries to visit them during their trips to town. Schuler and Turbeville (1948) observe that less than 10 percent of Michigan farmers living over 5 miles from a site take advantage of library services. Chandler and Croteau (1940) indicate that a heavy concentration of users on Prince Edward Island live within a mile of a library. Luckham (1973) observes a similar concentration of users within a 1-mile radius in several English towns. Studies of extended library systems (Colorado Market Research 1974; Elrick and Lavidge, 1977; National Educational Resources Institute 1972) show somewhat lower percentages of patrons within the first mile. However, the majority of users reside within a five-mile radius.

Linear distance from a geographic location may not give an accurate representation of the relative land areas involved in a survey (Bennett and Smith, 1975). A system of normalization, whereby user attendance may be